

REMARKS

In the Office Action, claims 1-7 were rejected. In the Office Action Summary, the Examiner failed to list claim 8 in the “Disposition of Claims”. However, claim 8 was addressed in paragraph 2, page 4 of the “Detailed Action”. Applicants therefore believe that the Examiner intended to reject claim 8. By the present response, claim 2 is amended to correct a minor informality and new claims 9-20 have been added. Following entry of the amendments, claims 1-20 will be pending in the present patent application.

Reconsideration and allowance of all pending claims are requested.

Rejections Under 35 U.S.C. § 102

In the Office Action, claims 1-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Arman et al. titled “Model Based Object Recognition in Dense-Range Images” (hereinafter “Arman”). In paragraph 2, page 2 of the “Detailed Action” the Examiner failed to list claim 8. However, claim 8 was addressed in paragraph 2, page 4 of the “Detailed Action”. Applicants therefore believe that the Examiner intended to reject claim 8 on the same basis.

A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985). Applicants respectfully assert that the present invention, as recited in independent claim 1 is patentable over the Arman reference.

Arman discloses projecting lines onto a surface of an object, obtaining an image of projected lines (*see*, Arman, section 2 and section 2.1.1), and low-level processing of acquired data to obtain the symbolic representation of the data (*see*, Arman, section 3). Further, Arman discloses several smoothing techniques (*see*, Arman, section 3, page 13) and matching strategies for establishing point correspondence (*see*, Arman, section 6, page 25).

However, Applicants respectfully assert that Arman does not teach or disclose a matched filter of the type defined in the application. Further, Arman does not teach or disclose identifying a center of a stripe as described in the application. The Examiner stated that the Arman reference discloses generating a matched filter for each pixel, filtering the image with the matched filter and identifying the center of the projected laser stripes in the filtered image (referring to Figures 2-4, Pages 9-14, Section 2.1.1 through 3). However, the Examiner failed to demonstrate how the reference reads on the matched filter of the type described in the application at all. Further, the Examiner did not clearly point out whether the reference identifies the center of the projected laser stripes at all. Applicants contend that Arman does not teach at least these processes.

The Examiner further stated that Arman reference discloses generating the matched filter via the formulas described in the application and particularly points out the formulas B.23.a through B.23.e, and B.25.a through B.25.e disclosed in Arman. Applicants respectfully assert that the formulas B.23.a through B.23.e, and B.25.a through B.25.e disclosed in Arman do not read over the formulas described in the application to generate the matched filter.

At least because Arman does not disclose or suggest a technique that involves generating matched filter and/or identifying a center of the projected laser stripes as claimed, the reference cannot support a *prima facie* case of anticipation of claim 1. Claims 2-8 depend directly or indirectly from claim 1. Accordingly, Applicants submit that claims 2-8 are allowable at least by virtue of their dependency from an allowable base claim. Applicants also submit that the dependent claims are further allowable by virtue of the subject matter they separately recite. Thus, it is respectfully requested that the rejections of claims 1-8 under 35 U.S.C. §102(b) be withdrawn.

New Claims 9-20

Claims 9-11 depend directly or indirectly from claim 1. Accordingly, Applicants submit that claims 9-11 are allowable by virtue of their dependency from an allowable base claim. Applicants also submit that the dependent claims are further allowable by virtue of the subject matter they separately recite.

Claim 12 is believed to be allowable for the same reasons as claim 1. The claim includes the recitations claim 1 in combination with those of claims 2 and 3. Claims 13-16 depend directly or indirectly from independent claim 12 and are believed to be equally allowable.

Claim 17 recites projecting one or more laser stripes onto a surface of the object, obtaining an image of said projected laser stripes, identifying incoherent pixels in said projected laser stripes and determining one or more corrupted laser stripes in said image based on the identification. Applicants respectfully assert that determination of corrupted laser stripes is novel. Claim 17 is therefore considered to be allowable. Claims 18-20 depend directly or indirectly from independent claim 17 and are believed to be equally allowable.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: 4/12/2005

29
Patrick S. Yoder
Reg. No. 37,479
FLETCHER YODER
P.O. Box 692289
Houston, TX 77269-2289
(281) 970-4545